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RWANDESE PATRIOTIC ARMY LOGISTICS UNIT (G4)
ASSESSMENT AND RECOMMENDATIONS FOR CHANGE

by

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June 2000

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This thesis is an organization assessment of the army G4 (the logistics department of the Rwandese Patriotic Army) using a systems framework. The purpose of the study was to describe the current state of the organization and to determine whether G4 is functioning efficiently and if not, then recommend measures to improve performance. Assessment results show a responsive organization struggling to cope with a dynamic and uncertain external environment. The organization is riddled with internal misfits and rigidities, all of which inhibit operational efficiency. The thesis suggests possible courses of action to help G4 leaders improve their service. Specific recommendations include: revision of the organization's mandate; specification of G4 mission and direction; redesign to achieve more congruence; treatment of personnel issues; and adoption of clear and inspiring goals with corresponding procedures for evaluation. Improvement efforts require active support and participation of all G4 stakeholders.

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THE RWANDESE PATRIOTIC ARMY LOGISTICS UNIT (G4) ASSESSMENT AND RECOMMENDATIONS FOR CHANGE

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Submitted in partial fulfillment of the
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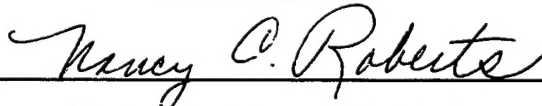IN INTERNATIONAL RESOURCE PLANNING AND MANAGEMENT**

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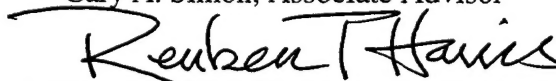June 2000**

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ABSTRACT

This thesis is an organization assessment of the army G4, (the logistics department of the Rwandese Patriotic Army,) using a systems framework. The purpose of the study was to describe the current state of the organization and to determine whether the G4 is functioning efficiently and if not, then to recommend measures to improve its performance. Assessment results show a responsive organization struggling to cope with a dynamic and uncertain external environment. The organization is riddled with internal misfits and rigidities, all of which inhibit operational efficiency. The thesis suggests possible courses of action to help G4 leaders improve their service. Specific recommendations include: revision of the organization's mandate; specification of G4 mission and direction; redesign to achieve more congruence; treatment of personnel issues; and adoption of clear and inspiring goals with corresponding procedures for evaluation. Improvement efforts require active support and participation of all G4 stakeholders.

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I.   INTRODUCTION

A.   BACKGROUND

The Army G4 (Rwandese Patriotic Army Logistics Service) is in its sixth year as a national military logistics service. It started after the RPA defeated the national military in 1994. To form the new national military, the RPA was re-organized to include former government military members who did not participate in the 1994 genocide.

Since 1994, the new military has grown in size and has assumed more responsibilities. Likewise the logistics department has grown in size and operations. The department now faces competing demands. These demands are a result of persistently high security threats after the 1994 genocide, which have led to more military operations within and outside the country.

More operations require more material resources and personnel who have the organizational and management skills to optimally deploy these resources. Unfortunately national resources are scarce and they limit the soldiers' rising personal expectations. All these issues pose a serious challenge to the Army at large and the logistics department in particular.

B.   PURPOSE

Against this background, it would be useful to assess the logistics service to determine whether it is operating as efficiently as it can. If it is not efficient, then the

intention would be to determine what can be done to improve performance. Thus this study will answer the following questions for the Rwandese Patriotic Army Logistics Organization (Army G4):

1. What is the nature of G4's current operations in terms of its direction, design features, culture, and performance?

2. How well is the organization functioning or performing?

3. What can be done to improve performance?

These important and difficult questions can be best addressed and answered when one has a better understanding of the organization and its components. Thus, the purpose of this research is to provide a framework to help managers and leaders assess organizational performance and to identify the leverage points for organizational improvement. This research also aids policy makers in logistics matters to develop a more systematic, analytical approach to assessing their system. It benefits the logistics unit employees by enhancing their capacity to identify areas that degrade organizational performance. It also contributes to our understanding of change by showing how managers can gather valid data about organizational functioning and how they can use these data to guide the change process. By monitoring organizational indicators, logisticians can learn how to diagnose organizational problems and develop recommendations for improvement. This study offers some benefits to organizational stakeholders, too, by giving them ideas of what to expect from the improvements.

C.   METHODOLOGY

This research is a case study of the Army G4 (The Rwandese Patriotic Army Logistics Service). The case study used a number of data collection methods:

1.   Archival records of the G4;

2.   Interviews with organization officials and Ministry of Defense officials who deal with logistics matters; (Interviews include structured, and unstructured open-ended questions.(See appendix C for the interview questions).

3.   Direct observation (the author is a former employee of the organization).

D.   SCOPE OF STUDY

The study focuses on the current state of the defense logistics unit, particularly the Army G4. Relevant approaches to assessment and change are addressed in Chapter II. Interventions for improvement where necessary and applicable are suggested in Chapter IV.

E.   LIMITATIONS AND WEAKNESSES

This study describes a complex and newly-emerging organization. Much of the data on which it relies is subjective and impressionistic. There are numerous organizational variables to analyze, but time and resources for research are limited. I had to decide what information to collect and what information to ignore during the research process. Therefore, the study is exploratory and descriptive at a macro level of analysis.

Furthermore, each of the different methods used to collect data on the operations and structure of the logistics department has its own strengths and weaknesses. For example, archival records may have problems of validity and therefore require crosschecking to ensure that they are not biased. Some employees may consciously provide invalid data to the records system, others may provide information that they feel reflects well on them rather than what is true. Some archival data may be hard to analyze because what constitutes standards of the various performance measures in organizations is not always clear.

Interviews, although a valuable source of data, are also subject to biases by the respondents and interviewers. Answers to questions depend on how clearly the questions are posed and how the respondents interpret the interview questions. Again, collection, analysis, and interpretation of data collected are difficult activities. There is always a possibility of misinterpreting and biasing the data, either on the side of the respondent or the interviewer.

In addition to these general observations, I must also acknowledge several hardships during the course of the study that will inevitably have some impact on the results. First, I had to rely primarily on subjective assessments (interviews and personal observations as a former employee of the department). I attempted to be as objective as I could, but my bias and perspectives undoubtedly influence the assessment.

Second, the analysis is not as substantial as I would have preferred because of the limited time and resources for the research. Travel was restricted to one visit and data gathering was limited to interviewing five officials who deal with logistics in the Ministry

of Defense and the G4 service. I did not have enough time to interview other officials in the army logistics department and those of other military services. The following were interviewed: the secretary general, the director of finance, the director of planning in the Ministry of Defense; the Army chief of logistics (G4); and a G4 logistics officer responsible for research and development.

Some types of data on force strength, size, and defense budget figures were simply not available. Some of the data is classified and therefore inaccessible. Some available information is filed in fragmented form where readily accessing and retrieving it is not possible.

Despite these difficulties, significant amount of data were available from the various logistics offices, especially the G4 office. So, despite the weaknesses of the data collection techniques in this study, the use of multiple methods is expected to increase the data's validity. The strategy of using interviews, archival records, and my own observation can minimize the distortions and ensure greater validity.

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II.   ORGANIZATIONAL ASSESSMENT

A.   INTRODUCTION

Various elements of our lives are bound up in organizations. There is much concern about performance of major institutions in society, such as government. The pressures of increased complexity, scarce resources, and rising expectations demand that organizations be more effective. A major question, therefore, is how to create organizations that better meet the expectations of individuals as well as the needs of society. Creating effective organizations requires the ability to assess them and understand what makes them function as they do. This understanding in turn implies the knowledge and ability to collect, understand, and apply information about organizations in order to improve performance. This chapter reviews the assessment process and the alternative approaches to diagnosing and improving organizations.

B.   WHAT IS ORGANIZATIONAL ASSESSMENT?

Assessing an organization is collecting information from and about an organization, analyzing it, and then casting the information within a systemic and systematic framework. A good assessment will point the way toward, if not determine, the steps that must be taken to change and improve the organization. To assess well, one must know where to look and what to look for. This is where the notion of a system becomes important. An organization is an open system, with information and material

coming into the organization. Some of this material is used internally and part is transformed into organizational results going out of the system. Thus we look at the organization as a whole.

Assessment is also the process of measuring or evaluating external or environmental factors as well as internal organizational conditions. It is a process of measuring the effectiveness of an organization. Effectiveness includes both the task performance capabilities of the organization (how well various components of the organization are structured and function to perform tasks) and the impact of the system components on individual members.

Organizational assessment often involves the following activities: data collection, data interpretation, and data use. As mentioned in Lawler, Naddler, and Cammann (1980) assessment is a systematic data collection and use drawing on valid and reliable instruments and techniques and conducted with healthy skepticism.

Key measurement areas that form the domain of organization assessment according to Naddler (1979) are:

- Tasks (the nature of work that is to be done);

- Individuals (the characteristics of people who make up the organization);

- Groups (the aggregated individuals to perform a range of different tasks or functions);

- Formal organizational structure, the formal leadership practices and various mechanisms for the coordination and control of individuals and groups;

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- Informal organization (not seen on organizational charts, but these relationships, structures, and processes are important because they are both the result and a cause of much of the individual and group behavior);

- Environment. (Organizations exist within and have transactions with a larger environment);

- Outputs: the nature and quality of outputs of the behavior system of the organization.

C. WHY IS ORGANIZATIONAL ASSESSMENT SO IMPORTANT?

Assessment is a process that tells the manager what is out of balance and what is functioning effectively.

1. The process provides rational analysis of the organization's system integrity and helps to develop commitment for change among the power players of the organization when the organization is not functioning well.

2. Furthermore, assessment allows a distinction of critical issues from other issues and helps us focus on the system's true leverage points rather than hunting for quick fix solutions.

3. Assessment is also very important in identifying the leverage points for organizational improvement. As emphasized by Hanna (1988), it is the diagnosis that must precede prescription if the root causes of the ailment are to be treated. Organizations have many symptoms that might divert the manager's attention and time. Assessment

allows the organization to identify the underlying causes of its performance and when they are addressed can lead to meaningful improvements in the entire organization.

D. USES OF ASSESSMENT DATA

Assessment data are directly related to the many decisions for which they are used. Assessment data are very important in problem diagnoses and decisions about resource allocation, and job choices that have to be made in and outside organizations.

Uses of assessment data include:

1. Human Resource Management. Personnel Managers collect assessment data on counter productive behaviors like absenteeism, tardiness, and turnover and employee satisfaction to monitor employee productivity;

2. Change Management. Managers collect data on the organization's results. If the results are poor, then, they search for changes to make in the organization's direction and /or design factors.

3. Program Evaluation. Evaluators collect assessment data to determine how well programs are doing. They also use the data on an ongoing basis to help shape and improve programs. A continuous assessment helps point out where the program may be having problems or unintended consequences;

4. Resource Allocation. Managers collect assessment data to help them make decisions on which projects to fund. Programs without measurable impact or evidence of contribution to the organization are considered less important and therefore not financed.

E.   ALTERNATIVE MODELS OF ORGANIZATIONAL ASSESSMENT

For information about the organization to become understandable and useful, it must be treated in organizational terms. Hence, it is necessary to look at some models and theories that help organize and systemize information about organizations. Some of the models are descriptive and others emphasize specific dimensions for assessment. Some emphasize technological aspects, others financial aspects, and still others look at informational aspects. Since this thesis is interested in understanding what people do or do not do in organizations, the emphasis is on behavioral oriented models. Although the man-machine interaction is of interest, the focus is on its consequences for the people involved (Burke 1987).

All the models considered here, although different from one another, are based on the open-system notion of input- throughput- output, and all recognize that an organization exists in an environmental context. Also, they all recognize the same fundamentals i.e. an organization is an open system that exists in an environment and consists of people and technology (Burke 1982). Three kinds of models considered here include "The One Best Way Models," "Contingency Models," and "The Open Systems Approach" to organizational assessment and change.

1. The One Best Way Models (Normative Theories)

Normative theorists argue that, for organization development, there is one best way to manage and change. Major proponents of the normative theory are Likert (1976) and Blake and Mouton (1968, 1978).

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a) Likert's Profiles

This model categorizes organizations into four types:

System 1- autocratic, top down, exploitative management;

System 2- benevolent autocracy;

System 3- consultative;

System 4- participative management.

Likerts' approach to diagnosis is structured and directional. It is structured by use of his questionnaires (The Profile of Organizational Characteristics). It is directional in that data that are collected are compared with System 4. The survey feedback method is used as the main intervention; data from the questionnaire are reported back to organizational members. The questionnaire has six sections covering *leadership, motivation, communication, decisions, goals, and control aspects.*

b) Blake and Mouton's Grid of Organizational Development

Blake and Mouton argue that there is one best way to manage an organization. They also depend on questionnaires. In their study of the most common barriers to organizational effectiveness and corporate excellence, they found that communication was number one followed by a lack of planning. These two major barriers and the other less prevalent ones are symptoms of organizational problems, not causes according to Blake and Mouton (Burke 1982). The causes lie deeper in the system. Faulty planning for example is a result of an organization's not having a strategy or having a strategy based on unsound rationale. Communication problems derive from the nature of the supervision practiced in the organization.

Blake and Mouton developed a six-phase approach to organizational development that considers both the organizations' strategic plan or lack of it, and the style or approach to supervision and management. Organizational members should first examine managerial behavior and style and then develop and implement an ideal strategic organizational model.

Their dimensions, which include production and people, are interdependent. Blake and Mouton note that leadership is impossible without both task and people. Any manager will have concern for accomplishing the organization's purpose like producing products or services, results, or profits. Also, a manager will have some degree of concern for the people who are involved in helping to accomplish the organization's purpose.

2. Contingency Approach

(Lawrence and Lorsch's Contingency Theory) Contingency advocates specify neither a best way to diagnose nor a particular direction for change. They emphasize structure and intergroup relationships in organizations. They argue that there is a cause-effect relationship between how well an organization's internal structure matches its environmental demands and how well the organization performs (the ability to accomplish its goals and objectives).

The primary concepts of Lawrence and Lorsch's contingency theory are **differentiation** and **integration**. Within this framework, organizational diagnosis is conducted along these two dimensions and a series of questions are generated:

Environmental demands: On what basis does a customer evaluate and choose between competing suppliers (price, quality, delivery, service etc)? What are the major

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problems an organization encounters as it operates? Have there been changes in the past? And what is the current situation?

Differentiation: Regarding structure, what is the average span of control? How important is it to have formal rules for routing procedures and operations? How important are interpersonal relationships? How clear are the goals and how are they measured? In terms of feedback time, how long does it take for employees to know their performance?

Integration: What is the quality of relations between units? How interdependent are the organization's units?

Conflict Management: What mode of conflict resolution is used? How much influence do employees have on the hierarchy for solving problems and making decisions?

The organizational diagnostician would be looking for the degree of match between environmental demands and the internal organizational structure. Lawrence and Lorsch stress interfaces between the organization and its environment, between and among units within organizations, and between individual employees and the organization as represented by management.

3. Open Systems Models

This approach provides a macro view of the organization and assists leaders and managers in linking and discussing factors affecting organizational performance as a holistic system. The systems approach allows leaders to understand how changes in one area affect other parts of the organization, and how strategy, structure, environment, processes and subsystems (i.e. decision making, rewards, and communication) affect

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tool that can help managers improve organizational performance. This thesis will briefly discuss three examples in this open-systems category which include:

a) Weisbord's Six-Box Model

Weisbord depicts his model as a radar screen with "blips" that tell us about organizational highlights and issues both good and bad (Burke 1987) (See figure 2.0). Every organization is situated within an environment and, as the arrows indicate, the organization is influenced by and in turn has an impact on various elements of that environment. In Weisbord's model, the organization is represented by six boxes, which represent purposes, structure, rewards, helpful mechanisms, relationships, and leadership. For each box, the client organization should be diagnosed in terms of both its formal and informal systems. A key aspect of any organizational analysis is the gap between the formal dimensions of an organization, such as the organizational chart (the structure box), and its informal properties, such as how authority is actively exercised. The larger the gap is the more likely that the organization is functioning ineffectively and the narrower the gap the organization is likely to be functioning effectively.
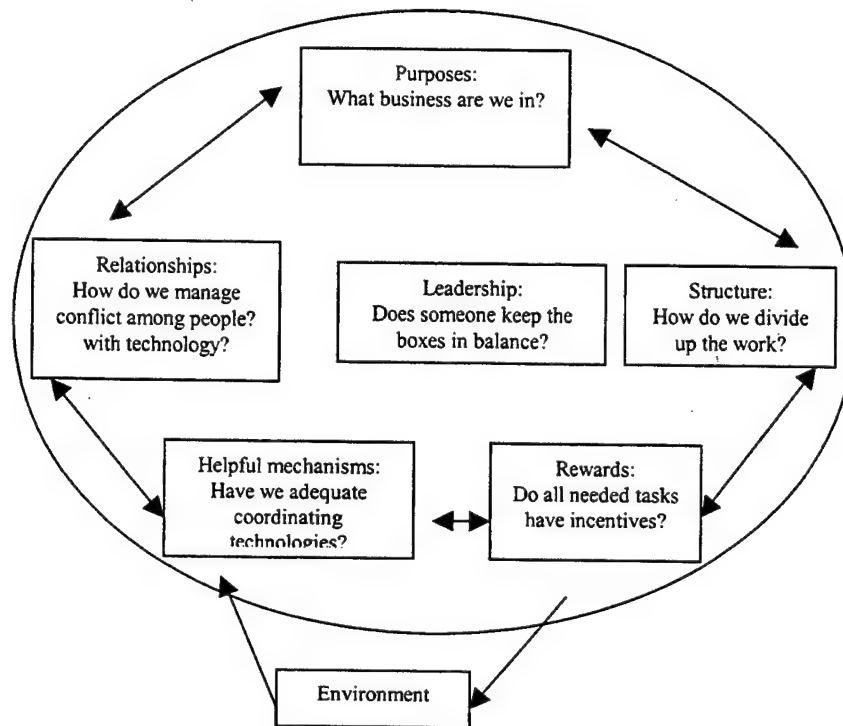
Weisbord's Six-Box Organizational Model

Figure 2.0

Source: M.R. Weisbord, *"Organizational Diagnosis: Six places to Look for Trouble with or without a Theory,"* Group and Organization Studies (1976).

b)   The Nadler-Tushman Congruence Model

Nadler and Tushman also assume that an organization is an open system and therefore is influenced by its environment and to some extent by outputs. An organization is thus the transformation entity between inputs and outputs (See Figure 2.1 for the diagram of the model). Nadler and Tushman view inputs to the system as relatively fixed, and they include the environment, the resources available to the

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inputs help define how people in the organization behave, and they serve as constraints on behavior as well as opportunities for action. The environment consists of the larger parent system and the rest of the world, including government regulations, competitors, and the market place in general.

- Resources within this model include capital (money, equipment, property), raw materials, technologies, people, and other intangibles that may have value in the organizations market.

- The history of the organization determines, for example, patterns of employee behavior, policy, the types of people the organization attracts and recruits, and even how decisions are made in a crisis.

- Strategy is the process of determining how the organization's resources are best used within the environment for optimal organizational functioning. It is the act of identifying opportunities in the environment and determining whether the organization's resources are adequate for capitalizing these opportunities. Some organizations are very strategic; they plan. Others simply react to changes in their environments or act opportunistically rather than according to long-range plans.

Nadler and Tushman point out that organizations have strategies whether they are deliberate and formal or unintentional and informal (Burke 1987).

Nadler and Tushman present four key types of system outputs: system functioning, group behavior, inter-group relations, and individual behavior and affect. With system functioning, information is drawn from how well the organization is attaining its desired goals of production, service, etc. how well the resources are utilized,

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and how well the organization is coping with the changes in the environment over time. Other behavioral outputs are understood by how well groups or units in an organization are performing, how effectively they communicate, resolve conflict, and collaborate.

Transformation process is composed of the task component that includes jobs to be done and the character of work. Individual component consists of all differences and similarities among employees. Organizational design elements include managerial and operational structures of the organization, workflow and design, and the reward systems. These elements are the formal mechanisms used by management to direct and control behavior and to organize and accomplish the work to be done. Informal organization is the social structure within which the organization including the organizations' internal politics and the informal authority-information structure.

Transformation process

Inputs
Environment
Resources
History

Strategy

Informal
Organization

Task

Formal
Organization

Individual

Outputs
Organizational
Group
Individual

Feedback
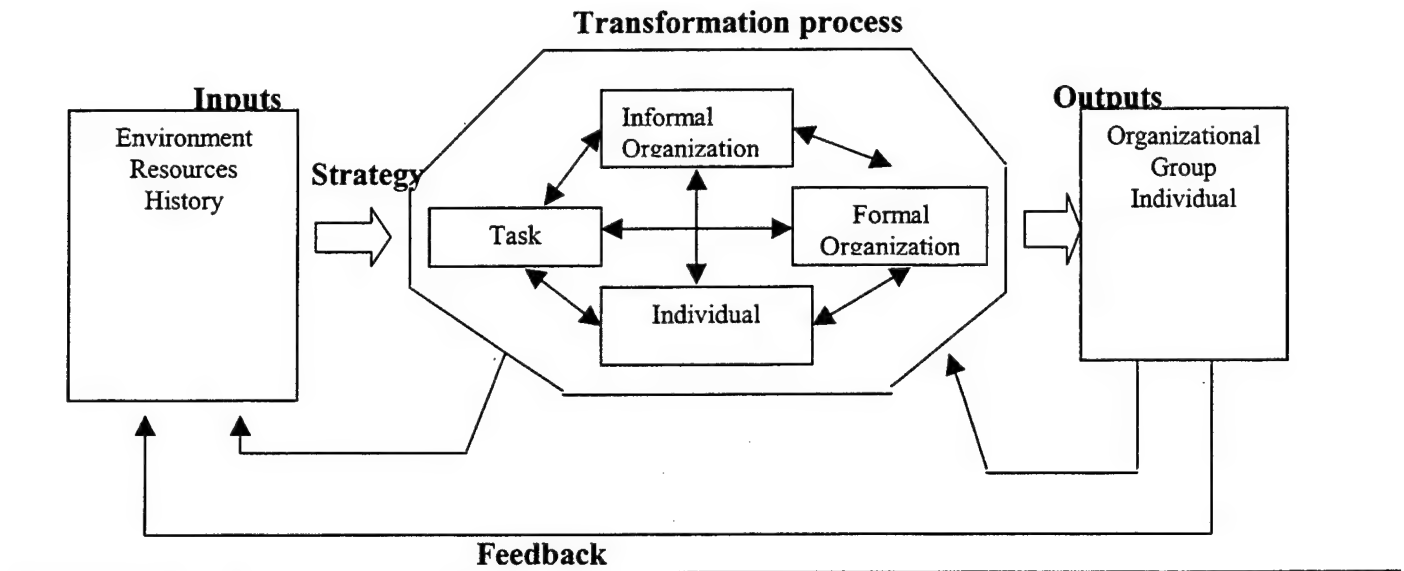
The Nadler- Tushman Congruence Model for Diagnosing Organizational Behavior

Figure 2.1

Source: D. A. Nadler and M.L. Tushman, "*A Diagnostic Model for Organization Behavior,*" *in Perspectives on Behavior in Organizations,* ed. J. R. Hackman, EE. Lawler, and L. W. Porter (New York: McGraw-Hill, 1977).

Nadler and Tushman recommend the following three steps for diagnosis:

- Identify the system or the organization, its boundaries, members, its tasks, and its relationship with other units.

- Determine the nature of the key variables. What are the dimensions of the inputs and components? And what are the desired levels of outputs.

- Diagnose the state of fits, determining fits between components and diagnosing the link between fits and organizational outputs.

- Considering the component fits, or lack thereof, the system outputs helps identify critical problems of the organization. As these problems are addressed and

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changes are made, the system is then monitored through the feedback loop for purposes of evaluation.

c) Organizational Systems Framework

The last to be looked at is the organizational systems framework. The critical factors of this model are:

- *Environment/Context.* This includes elements like political, economic, social, and technological conditions within which the organization operates. The environment has needs that the organization must satisfy and also exerts pressures that must be managed by the organization. These pressures may consist of specific organizational results, social, legal, or political expectations, budgets, growth patterns, development of technology and people, material shortages, innovations, expectations of the employees and their families about such factors like job security, career growth, and wages. Context includes today's environmental needs and pressures as well as those that may have a strong impact on the organization's future.

- *System Direction.* The system direction states the organization's reason for being and its strategy of moving the organization into the future. It consists of the organization's mandate, mission, and underlying values and assumptions and strategies. All these elements determine what is important in the system; they define what will be done and what will not be done in the future. They also determine what critical tasks of the system will be and what tasks members will focus their attention on.

- *The Design Elements.* These are the organizational elements, such as tasks and technology, structure, rewards, people, information systems and decision-making

process that are used to execute the organization's mission. These elements provide structure to work tasks and reenforce patterns of behavior. How people are organized to do their work and how they interact with each other are all critical factors among the design elements.

- *Culture.* The observable work habits and practices that explain how the organization really operates define the organizational culture. It can also be viewed as behaviors, values, rites, creeds, and rituals found in organizations. The behaviors and work patterns one can observe and the underlying assumptions that often cause the behaviors are the core components of culture.

- *Organizational Results.* Results are comprised of outputs being delivered by the organization in terms of its products and or services it provides. Results also include the consequences of the organization's operations, which are labeled as the organization's outcomes.

F.   CHOICE OF ORGANIZATIONAL SYSTEMS FRAMEWORK

The Organizational Systems Framework was chosen as a diagnostic tool to assess the Rwandese Patriotic Army Logistics Unit (G4 Army). The assessment is the subject of Chapter (IV), and figure 2.2 is the framework's illustration. The model addresses a number of key variables that are not covered by other models. Most importantly, it illustrates the extent to which organizational variables are congruent or fit one another. By tracing problems and results to misfits and problematic flows among systems components and design factors assessors can discover enduring systems features that

account for organizational malfunctioning and identify systemic causes. The model further alerts us to look for possible side effects of unanticipated actions and hard-to-diagnose consequences that can alter the status quo within the system. These unanticipated outcomes can occur when changes in one system component lead to developments somewhere in a distant, but interdependent part of the system.

The organizational systems framework based on systems theory is useful because it helps assessors avoid common mistakes, as outlined by (Hanna 1978):

- Treating an organization as if it were a piece of machinery. Mechanistic procedures of machine theory work against living systems' natural tendencies, and therefore constrain effectiveness and output;

- Assuming that organizational goals are also the goals of the organizational members;

- Ignoring the complex environment and looking only inside the organization for planning and problem solving;

- Looking for one best way to manage. Instead, managers should be encouraged to propose actions that lead to the desired results;

- Believing in a singular cause and effect relationship between systems variables, when in most cases there are many causal factors. Systems thinking helps us identify multiple causes and effects and to understand the resulting relationships;

- Dealing with only one piece of the total system while ignoring the impact on the whole;

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- Treating irregularities in the system as though they were errors in performance when in some cases they might be caused by changes in the larger environment. Feedback loops are needed to clarify if performance is unacceptable because the target has been missed (negative feedback) or to a movement in the target (positive feedback);

- Forgetting that the purpose or the organization is also determined by the environment and not the organization alone;

- Failing to realize that people, as open systems, are also self regulating and usually function in an optimal manner when: goals are clear, there is goal commitment, they have reasonable autonomy, and lastly, when there is clear feedback in the system;

- Believing that motivation is something to give to others, rather than something that is intrinsic to individual energy level and interests;

- Assuming that people are uncooperative, when in fact they may have different goals;

- Spending much time measuring the results rather than the purpose and not questioning whether the purpose is still appropriate;

- Ignoring group process by issuing directives and then depending on individuals to get the job done;

- Not recognizing that resistance to change is always connected with the systems natural tendency to preserve its state of equilibrium;

- Failing to distinguish between accountability and responsibility. Managers get caught up in the core work, rather than making management's unique contribution through "boundary management."

- A systems approach is very useful when analyzing organizations because it shows the interrelationships between all the factors that influence an organization. The approach assumes that an organization can only be understood by looking at the sum of all parts and at the level of congruence between them. Congruence is the degree to which the system components interact and create interdependencies between parts. The parts of an organization can fit well together and function effectively, or they can fit poorly and lead to problems, dysfunction, and poor performance. The basic assumption is that organizations will be more effective and efficient with greater congruence or better fit between the major components.

Environment/ Context (External to the System)
Political Economical
Social Technological Ecological

Key Success Factors (What does it take for the system to be successful?)
Reactive? Political? Efficient?
Effective? Collaborative?

Systems Direction
Mandate, Values, Mission,
Goals approach? Vision approach? Strategic Issues approach?
Strategies

Design Factors

Structure
What are the basic groupings of activities and people?
Are these groupings a good fit with the workflow? How are the groupings integrated? What are the integrating devices used?
Hierarchy? Task forces? Integrating roles? Matrix? Networks?

Process/ Subsystems
Human Resource Management
Who is recruited and selected? Are we hiring the right kinds of people? How do we train and develop people and are our current efforts adequate? What is rewarded and do they fit the desired pattern of behavior?
Measurement and Controls
How are people held accountable for resources? Do these mechanisms of accountability produce the desired patterns of behavior?
Planning, Communication and Information Management
How do we plan? How do we communicate? How do we gather, process, distribute, and evaluate information?

Tasks
What are the basic tasks?
What specifications are required?
What differentiation is required?

Technology
Describe the workflow. What are the key interdependencies among the work units or activities in the workflow?
Describe the physical facilities and equipment.

Culture
What are the prevalent norms and values in the system? How is conflict managed? What are the formal and informal patterns of interaction? Does the culture impede or facilitate integration of effort? Does the culture fit the larger environment?

Outputs
What does the system offer/ produce in terms of goods and services? How are the outputs measured? What are the indicators of performance?

Outcomes
What are the implications/ consequences of outputs for stakeholders? How are outputs interpreted in view of the environment?

The Systems Model (Source: Roberts Nancy, Naval Postgraduate School, 2000.)

THE ORGANIZATIONAL SYSTEMS FRAMEWORK
Figure 2.2

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III. THE RWANDESE PATRIOTIC ARMY LOGISTICS ORGANIZATION (G4)

A. INTRODUCTION

Rwanda is a small and poor central African country with an area of 26,000km² and a population of eight million people. The Rwandese Patriotic Army (R.P.A), the national army, began as a rebel guerrilla army, which invaded the country from Uganda in October 1990. In 1994, this guerrilla army defeated the government forces and overthrew the regime responsible for genocide during which time about one million people lost their lives. After the war, the force was reorganized with the reintegration of some of the former Rwandese military members, who did not take part in the killings, to form the new national military.

Initially the new military started with the army as the biggest military service and a small National Gendarmerie, a national police service. Both of the services were under the Ministry of Defense. Gradually, since then, other services and departments have been added. These include the airforce, the military police and the military justice department, and the intelligence services. Other units and departments are still evolving as needed and as resources become available. Some other changes are being carried out as the need arises, for example the National Gendermerie has been dissolved and replaced with a national police force which is under the ministry of internal affairs.

The former national military was approximately 10,000 in 1990. Currently the military stands at about 40,000. This growth can be explained by the R.P.A's intensive recruitment during the war, and the subsequent reabsorption and reintegration of former government military. However, limited recruitment has taken place since the end of the war in 1994.

The new national military is in its sixth year and is still slowly changing from a guerrilla force into a regular military force. Drastic changes in force structure are taking place. The country still faces a high security threat, budgetary resources are scarce, and military expectations regarding combat resources, as well as the soldier's individual requirements, must be addressed to keep them motivated and responsible.

B. DIRECTION

Because the security threat is still high, the government has been compelled to intensify military operations to better equip the military. To cope with this challenge, the government has mandated the Defense Ministry to build a strong military by increasing its effectiveness and efficiency.

And to realize this goal, the defense ministry will have to:

- Create a professional military;

- Equip the forces with relevant skills and knowledge through training and education;

- Provide the military with the necessary logistical tools and equipment to execute the given missions;

- Reorganize the military so as to have optimal force readiness.

The Role and Responsibilities of the Army Logistics Service (Army G4)

Although all initiatives and responsibility for building a regular military force are the responsibility of the Ministry of Defense, the army plays a crucial role because it is the major source of resources, personnel, and infrastructure. Providing logistical services and materials necessary for military operations is the responsibility of the Army G4 (the logistics service of the Army). The G4 is primarily a department of the army service, but it is nonetheless responsible for the majority of field logistics activities of all military services and defense offices. All other services' logistics officers work closely with the G4 army and most of their work is subordinate to the G4, with the only exceptions being cases of specialized service requirements which are not used by all the military in general.

Other specific categories of logistics handled outside of the G4 are medical equipment, medicines, weapons and ammunitions, and communication and telecommunication equipment, which are handled by specific departments in the ministry headquarters. (See Figure 3.1 for the organization structure of all departments involved in the logistics function at both ministerial and service level.)

The army G4 has three basic functions:

- The management of materials, which covers such activities as general supply distribution, procurement, material disposal/ decommissioning and logistics information management;

- Inventory management and distribution of materials;

- Defense contract administration and management, although the management and administration of contracts is supposed to be the official responsibility of the ministry headquarter departments.

The G4, in consultation with the field forces, works to design, requisition, procure, and shape the logistics requirements and policies of the military in general and the army in particular. The logistics service maintains, services, and replenishes the forces' inventory equipping the forces with the necessary resources needed to fulfill their operational obligations.

Routine activities of the service include: selection of items required by the military; management of the allocation system; initiation and execution of small procurement contracts (especially in the case of transport maintenance requirements); design and management of logistics policies; and disposal and retirement of defense property (this essentially involves writing off and disposing of vehicles).

The Army G4 is staff to the Army Chief of Staff and the Chief of Staff mandates him to manage the army's logistics needs and to support the force in realizing its mission. However, in addition to this mandate, the G4 service has additional responsibilities to handle all general field logistics activity for all the military services. The G4 is implicitly mandated to handle all general military logistics activities. Functionally G4 is held responsible for the management of all general logistics activities shared by all the services. G4's additional responsibility mainly stems from the need to take advantage of economies of scale by making all services share the existing army logistics infrastructure instead of setting up new expensive networks for the relatively new and smaller military

services. Centralizing the activities in the G4 minimizes duplication of roles and activities. The army still remains the major service. It is the foundation for creating any new military service when needed.

This arrangement explains the Army G4's additional logistics responsibilities and related processes of budget preparation and contract administration. (See Appendix A for a detailed description of the extra responsibilities of the G4. And refer to Figure 3.1 for the actual position of the G4 in the defense logistics network).

G4 responsibilities include:

- Evaluations and requisitions of logistical requirements which include assessing quantities, quality, and the value of material and the service needs of the army;

- Establishment of a safe and economic distribution network and depots;

- Establishment of use and control procedures of all logistics resources;

- Preparation and establishment of logistics policy guidelines;

- Evaluation of infrastructure and accommodation needs of the army;

- Verification and protection of supply networks and logistical infrastructure.

C. DESIGN FACTORS

1. The Organization Structure and Major Functions of the G4

(See Figure 3.3 for the formal organization structure of the G4 within the army structures). The figure shows that the logistics chief directly answers to the Army Chief of

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Staff through the Deputy Army Chief, and it shows the G4 administrative and functional directorates and sections. Figure 5 represents the current detailed operational structure of the G4 up to the field unit.

The G4 service has three major directorates through which it fulfills its responsibilities:

a)   Directorate of Transport

b)   Directorate of Supplies and Stores

c)   Directorate of Barracks, Engineering and Construction

Each of the directors is mandated by the G4 respectively to carry out the following specific functions:

a)   The Director of Supplies and Stores

The Director is responsible to the G4 for:

1)   Evaluating and planning of material supplies which include food, clothing, and all other general items required by the army;

2)   Requisitioning, receiving, storing, and distributing these materials to end users;

3)   Ensuring security of supplies until they are delivered to final users;

4)   Coordinating of all field units' and services' Supply officers and quartermasters to establish quality service to units.

5)   The supply and stores directorate is divided into the following three material categories:

- Food;

- Clothing;

- Other general items;

The food section handles all food items for the military, especially dry foods and packed or tinned rations for operations. Other routine individual rations are issued to individuals in form of a monthly ration cash allowance.

The clothing section handles clothing materials like uniforms, boots, and shelter materials like tents and ponchos.

All other items fall under the other items section.

These three sections work with unit supply officers to establish quantity and quality of requirements, replacement intervals, and allocation and distribution policies for all the military. They also maintain information about domestic sources and costs of locally available items. For imports, the sections advise the G4 on the quality and other specific requirements or particulars that may be needed and then G4 advises the relevant ministry departments which then process the procurement. Activities in the supplies directorate are simple and programmed with very rare exceptions in the normal activities.

b) The Director of Transport

The Director is responsible to the G4 for:

- All decision making in matters of transportation;

- Planning and coordinating all routine transportation requirements especially for administrative purposes and establishing optimal alternatives in movements and deployment of transport means;

- Requisitioning, receiving, storing, and distributing transport service requirements like fuels, parts, and any other related materials;

- Managing inventory and designing allocation and distribution procedures;

- Coordinating all units and services at all levels in transportation matters, which include movements, maintenance, and repairs. The director also works closely with field logisticians to design efficient and effective ways of managing transportation operations.

The transport directorate has the following three major functional divisions: maintenance, fuels, and administration. The directorate is the only section in the G4 service that directly manages part of its budget. It has a quarterly allocation of 100,000,000 Rwandese Francs (FRw) specifically earmarked for motor vehicle maintenance operations.

Maintenance, a technical division handling mechanical and technical repairs and service, designs and plans maintenance requirements and schedules, evaluates the quality

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of property and the lifespan of material, advises on transportation guidelines and establishes operational rules and procedures. Tasks in the maintenance section, although at times challenging and complicated, mainly follow established procedures and processes.

The maintenance division is the busiest section in the directorate, and it is also the biggest employer of civilian technicians in the Ministry of Defense. It employed 56 civilians in 1999, a decline from 75 in 1998. The civilian technicians are skilled and are rewarded accordingly to retain them because they are highly demanded in the private sector.

The fuel section handles all types of fuels, oils, and lubricants, from requisition, reception, storage, to allocation and distribution to end users throughout all deployments. This section also advises the director on fuel usage and accountability rules and procedures.

The administrative section in the directorate is a support section that coordinates plans and shapes transport operational policies, handles personnel matters, collects all feedback for the directorate, and advises the director on all issues in the directorate. It is basically the control and monitoring center of the transport directorate.

c)   Director of Barracks, Engineering and Construction

The director is mandated by the G4 to:

Repair, maintain, and manage all military bases, communication routes, energy resources and all other military infrastructure and facilities on military bases. Routine

operations of the directorate include: procurement of parts and maintenance materials, limited construction and renovations, and management of military infrastructure and facilities. This department's primary duties include:

- Ensuring supervision and control of military construction work contracted to private contractors;

- Managing inventory of non-movable assets, which include documentation and registration of facilities like buildings, depots, land, and forests;

- Acquiring and distributing construction and repair materials to sites where they are needed.

The directorate is sub-divided into:

- Housing, which is responsible for maintaining living quarters, for allocating quarters to military members, according to established procedures and guidelines, and designing means and ways of expanding housing units;

- The maintenance unit, which is responsible for repair and service materials for existing facilities;

Work in the directorate is technical and requires skills in civil and mechanical engineering at various levels, but currently, activities are still limited to maintenance and repairs. Operations in the directorate are still simple and do not demand special skills.

The army G4 service is functionally structured with the three major responsibilities formed into directorates. These, as already explained, include the transportation division, supply management, and housing construction and management.

Activities in the G4 are grouped according to functions and products at the directorate level. Further down in the field, logistics activities are structured according to both function and geography. All the major functions are duplicated in the different regions where the military deploys. Hence we have a combination of functional, geographical, and product structuring at different levels in the logistics service. Matrix structuring is also evident in the cases where logistics officers of other military services are subordinate to the G4, and also directly accountable to their various operational units.

The G4 coordinates all operations in the three departments. The supplies and stores and the barracks and construction departments rely heavily on the transport department for means of transport, fuel, and maintenance services during their operations, but the transport department does not heavily depend on the other directorates; it is more self-sufficient than the other two.

Due to the poor economy of the country, the army logistics service lacks most of the necessary equipment, tools and infrastructure for efficient and effective operation. As a consequence, its operating capability is greatly handicapped. Despite these constraints however, the service has survived. Despite the limitations, G4 has managed to serve the forces over the last five years with remarkable success. For example, most of the bases and facilities, like storage facilities and fuel depots, which were damaged during the war, have not been repaired. Few are currently fully operational. Secondly, only minor improvements have been made in the existing infrastructure instead of the much needed expansion to accommodate the increased force size. Also the new deployments have not been matched with the necessary infrastructure and facilities. This has lead to a situation

where many deployments are operating from rented, borrowed or temporary makeshift structures. Resources for both military operations and personnel welfare are very limited.

It is difficult to clearly define the boundaries of the G4 in the ministry, mainly because the process of building the services is still going on, and therefore "restructuring" is adding some new functions to the G4 and removing others. (See Figures 3.1, 3.2, and 3.3 for the approximate design and position of the logistics service at the Ministerial, Service, and Field levels respectively.) In addition to the organizational structures given in Figures 3.1, 3.2, and 3.3 Appendix A outlines some of the extra functions of the G4 which are over-and-above the formal mandate given by the Army Chief of Staff. These extra functions are mainly activities related to the budget preparation process and contracting process. Both the budget preparation and acquisition activities are slowly gaining the joint participation of all the services and the Ministry of Defense departments. Because the Army is the the major stakeholder in the military budget and contracting programs, it is necessary that the G4 gets aactively involved in these activities, despite the fact that both activities formally fall under the Ministry of Defense Offices. It would be accurate to assert that although the G4 is officially an Army logistics service the G4 is by and large functionally a"Defense Logistics Service."

Most logistics activities focus on the Army, which is by far the biggest service in the national military. All other services still operate as support units to the army. For example, the training academies receive most of their trainees from the Army and most of the graduates are re-deployed to the army. The airforce also still operates as a support to the Army. It does not yet have the capacity to carry out independent operations. The

Republican Guard, although an independent service unit, is charged with internal police duties, particularly with the protection of VIPs. It also frequently operates jointly with the Army. The judicial and military police unit is responsible for enforcing discipline and legal activities with the Army as its largest client.

Thus the military in Rwanda is still dominated by the army service with other services yet to develop into full and independent military services. They are still operating as army support units.

Forming the military has been gradual and incremental. Other services have been- and still are-drawing both material and human resources for their development from the Army, and operating on the existing Army infrastructure. The services still share most of the logistics requirements, equipment, facilities and infrastructure. Exceptions are only in cases of special equipment and tools, such as aircraft parts and other aviation requirements. With time, some distinctions have developed, such as the designation of different service uniforms. Also with the advent of specialized activities, specialized equipment is being demanded. Nonetheless all other general requirements are still being shared and are still centrally managed by the army G4 on behalf of the Ministry of Defense.

2.   G4 Human Resources Sub-Systems

The army G4 or logistics service is a desirable employer and many employees enjoy working in the department. They view it as a career-enhancing department. For example, personnel see the maintenance section as a place to acquire vocational technical

skills in motor mechanics and truck driving. The construction and engineering division also provides the staff with opportunities to accumulate technical experience that can be important for individuals' employment opportunities, given the nations' 55% illiteracy rate. Working in all logistics departments is exciting and provides a sense of responsibility and importance. The staffs feel that their efforts and contributions directly impact military operations; hence, support among the staff is strong. The personnel proudly identify with the Army and the logistics department in particular.

Despite the excitement, working in the logistics service is quite taxing and at times can be challenging, especially during intensive military operations or during periods of budgetary crisis. Again, it is important to note that to the other force members logistics employees seem privileged. Furthermore, G4 employees are often suspected of being corrupt by other soldiers. This is mainly because they have more access to the scarce resources of the army. The suspicion is fueled by a general scarcity of material requirements. However, it is true that cases of theft of property, and misuse of public resources like vehicles, fuel, food, and other materials sometimes occur. Thus soldiers who do not work in the logistics service perceive themselves as disadvantaged in some way, relative to the logistics employees.

Official army personnel issues or human resource management fall under the army G1 (personnel and administration services). All other services and departments have to abide by personnel policy guidelines from the G1; therefore, the G4 has limited involvement in personnel matters, apart from routine internal operations involving the scheduling of tasks, and inter-personal relationships.

Issues related to hiring, retirement, rewards, and promotions are limited to proposals and recommendations to the G1 by respective units and services. Even though personnel matters fall outside the official logistics domain, all personnel policies directly and indirectly influence productivity of force members irrespective of which department they work for.

It is therefore important to note that despite the progress being made in personnel matters, some subsystems are still underdeveloped.

Recruitment has not been formalized and no formal program is in place to determine whom, when, and where to recruit. This is important since building a military is a continuous process that demands on-going recruitment, retention practices, and discharge. Selection, placement, and evaluation are still generally conducted based on subjective judgments and personal discretion.

No policy guidelines concerning discharge and terms of service officially exist. Soldiers do not know what to expect in terms of when to retire, under what conditions one can opt to retire, and what to expect in retirement. There have been two discharges based on age, health or physical capability, and in some cases, special considerations. But retirement is not yet an established procedure, and it is not clear as to when it will be again, or when a routine discharge and recruitment will be formally instituted. In the past six years, I have met many young soldiers who wish to be discharged to go back to school or to join some other trades. But the army has not yet established procedures for dealing with such demands. This is because the military has been and is still preoccupied with operations. Only two discharges have been carried out in the past five years. In this

situation we have had soldiers who have gone to great extent to forge reasons that can easily grant them release. Other cases include feigning ill health to obtain a release on medical grounds, lying about a date of birth to overcome the age limit, and in extreme cases, complete refusal to work and desertion. On the other hand, there are some citizens who wish to join the military but cannot be enlisted. Even more frustrating, there is no schedule as to when recruitment will take place. No formal procedures of recruitment and discharge exist. Exception to this include: if one is over 40 years old for junior officers and enlisted personnel, or if one is medically proven incapable of military duty, but still one must wait for the general discharge to be released. Pressure for discharge and recruitment is growing.

Terminal benefits and social security are crucial issues that also have not yet been addressed. All these issues definitely affect the members' perception of the military, and if productivity and motivation are to be increased, they must be addressed. Meanwhile to improve the force members' welfare, a credit and savings plan has been established so that members can possibly save resources to acquire houses or to invest in other productive ventures. More debates and discussions to solve these problems are still taking place and it is hoped that shortly some solutions will be realized. Proper planning to improve defense personnel conditions is still hampered by the uncertain security environment, which makes it hard to establish the country's force size and structure. Consequently, this makes it hard to appropriately plan and implement programs to improve personnel welfare.

3. Army G4 Employees

G4 employees can be categorized as follows:

Technicians and mechanics mainly in transportation and construction departments;

Drivers in the transportation department and fuel section employees;

Supply officers and quartermasters in material management.

The above categories form the bulk of logistics staffs in the defense establishment. Overall there are about 1,100 employees in the military logistics services. Unfortunately, no detailed break-down was available. Most employees associate with each other based on their jobs and departments and have a strong camaraderie spirit. They are also very enthusiastic towards work, establishing their own working procedures and schedules with limited supervision. Very often they contribute valuable advice to directors on how to improve work and use initiative when required to improve productivity. Most employees respect the chain of command, but feel free to offer advice when they deem it necessary and beneficial for the department.

Despite this camaraderie and its positive effects on organizational goals, employee behavior sometimes becomes a liability, especially when the staff colludes to steal, damage property, or sometimes organize to manipulate the system to their own ends. For example, occasionally groups cover up for someone who steals or damages military property. In some other cases, employees may distort records to conceal poor

performance. Absenteeism and conflicts may go unreported until the situation becomes so serious that it reaches confrontational proportions.

The G4 service lacks adequate skilled personnel in all its departments and this seriously impacts its efficiency and effectiveness. This shortage is being addressed through intensive training of servicemen in both technical and formal education programs at various levels, both within the country and overseas. On-job-training is a very popular practice to teach urgently needed skills, especially those quickly acquired through practice. This applies to mechanics, masonry and brick laying, bookkeeping and storekeeping to mention a few.

Recruitment to the G4 is by identifying individuals with the required skills or the basic education. The G4 then requests those individuals from the Army Chief of Staff. These individuals can be drawn from any unit or department in the Army and even when necessary, the Chief of Staff can request needed employees from the minister of defense, if the individuals are in other services outside the Army. All other deployments follow the current placement procedures of the military personnel department. Formal selection and placement to logistics department concerns only the appointment to the G4 office and the three Directors. The G4 and his Directors are appointed by the Minister of Defense with the recommendation of the Army Chief of Staff. Then these, with the occasional approval of the Army Chief of Staff, appoint all other staffs in the logistics department.

Rewards are set up by the general defense remuneration system, which is primarily based on rank. Fringe benefits include accommodation allowances and free medical care for the individual and the immediate family members. Other forms of

rewards are promotions based on the evaluations and recommendations of individual units. Within units, employees can be recognized for outstanding performance and commended or even made supervisors. Unfortunately, the monthly salary cannot sustain the service member. This is the same for all public servants and therefore presents a national problem with no easy or immediate solution in the near future.

Punishments are very severe to prevent discipline problems and enforce compliance. Realizing compliance and order in the present environment of post-genocide, high levels of security threat, and limited resources, demands strict regulations and rules. To address this issue, the military has had to strengthen the military police and the judicial department in an effort to streamline the judicial process.

4. Army G4 Communication and Information Management

The G4 service has open communication with all sections and all its clients. They are always in contact through face-to-face meetings, telephones, radio messages, and reports. All the communication is always geared to improving operations of the service. The Directors and staff in G4 have unlimited access to the G4, and all field officers can directly access the directors or even the G4 when necessary, whether on official business or any form of routine feedback. The communication process is very helpful in generating important feedback for improving, controlling, and monitoring the logistics process. Communication between the G4 and both the Chief of Staff and the Ministry of Defense is mainly top down. The G4 receives instructions and directives from the higher authorities and executes the directives as given, or if necessary, the G4 can give some

advice and recommendations, especially if it is in some logistics technical matters. Communication from G4 to higher authorities is mainly in the form of feedback on executed assignments, and requests and advice on operational needs. In the lower ranks, below the G4, communication is both up and down with almost equal exchange. Many consultations, exchanges of views, and advice take place within the G4 units and sections.

5.   G4 Decision Making

Decision making in the logistics service is largely made by specific sections that conduct programmed technical activities with minimal supervision. Other decisions come from the G4 who occasionally is in close contact and consultation with the Army Chief of Staff and the Secretary General in the Ministry of Defense. Other decisions are made by the Chief of Staff who instructs the G4, as is the case with military institutions; orders and instructions are common. All technical decision making is delegated to the technicians who closely consult with directors during working routines. Decision-making is both centralized and decentralized, with centralization mainly at the top and decentralization and delegation common at the bottom.

Decisions on when to replace old equipment and materials start as requisitions from the G4 to the Chief of Staff. Then the Chief of Staff advises the Minister of Defense on what the army needs. The minister then decides on whether to buy depending on how urgent the equipment or material is needed, and on whether money is available. In the past, the Ministry of Defense departments have been micro-managing the logistics service because they control all the resources to the G4. For example, the G4 could only submit a

list of army needs, and then the Ministry logistics departments would determine where to buy from, what quantity, and even what quality. But these are key activities that genuinely require the participation of the army logisticians. Gradually, the G4 is progressively gaining control of most of its core activities and it is actively participating in the procurement and budget execution processes, which have previously been the Ministry of Defense's responsibility.

Sometimes making decisions on matters like the release of funds for office operations, granting leave to officers, who should occupy which house, and whose house should be repaired, and many others is so contentious that the Minister or the Chief of Staff has to intervene. This mainly results from a lack of policy guidelines on the terms of service and employment benefits and obligations. Where they exist, they are not observed or enforced.

Thus decision making tends to be centralized in the chain of command at higher levels especially from the G4 and above. Within the G4 service, however, there is significant delegation, especially of technical tasks. Logistics policy issues are gradually coming to rely on the technical and professional expertise of the logisticians. In the past, policies were directly formulated at the top and handed down through the chain of command. This practice is slowly diminishing but centralization remains strong in areas of military accommodation and construction, and management of high value contracts.

6.   Policy and Planning in the G4

Planning has been difficult and has been more "wishful thinking" than actual planning. This is because planning is supposed to be a process of setting programs of all required courses of action given the available resources. This is not so in the G4. The office rarely has an idea of how much money is available to the army. Other than the vehicle maintenance fund, which is set at Rwandese francs (FRW) 400,000,000 annually, and is released in quarterly installments to the transport directorate, no other funds formally flow to the G4. Planning for the army is further complicated by the lack of basic information on what the actual national force size and structure is supposed to be. The current structure and size are dictated by regional security circumstances. The current security environment has been very dynamic and therefore hard to predict. Planning effectively is not possible under the existing uncertain environment.

Logistics policy making is seriously constrained by a lack of defense-wide formal logistics service. This becomes quite clear when the Army service passes directives on how to use some materials for example fuel. At that time, the airforce or formerly the gerndermerie could not be bound by such policies because they were different organizations. There are other instances where effective implementation of logistics policies or initiatives by the G4 have been constrained by the difference between the formal setup of the logistics service and the actual operating logistics process.

Putting all uncertainties to the side, much remains to be done in planning for the military to benefit from informed decisions and programmed logistics operations.

7. Financial and Material Resources Management and Control

The G4 has internal controls to account for the funds and resource usage, and they are revised regularly. But, there are no independent internal or external audits to evaluate the ministry of defense controls in general or the logistics system in particular. Furthermore, there are no standards to provide an overall framework for establishing and maintaining internal controls or for identifying and addressing major performance and management challenges. Nor is there regular assessment of fraud, waste, abuse, or mismanagement.

All financial matters are the responsibility of the Ministry of Defense with the G4 primarily meant to handle material resources. Annually the G4 submits an action plan to the ministry through the Army Chief of Staff. It is this plan that represents the envisaged programs of the service. Until now, these plans served almost no practical purpose because the G4 had no idea how much money would be allocated to the army. Planning in the G4 is still an expression of material requirements and programs without any regard to whether the plans can be realistically achieved. And for that matter, these plans have not had any significant functional value.

The G4 has a number of internal control processes designed to optimize resource usage, which include daily, weekly, and monthly inventory and material accountability reports, release and receipt procedures, occasional financial assessments (by the Ministry of Defense Finance Department) and verifications and quality controls. In addition, feedback from the field is also an important input in the control process because it

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highlights problems and thereby guides corrective measures. This applies to both material and financial resources. It is important to mention that control measures in the logistics service are mainly an internal initiative, and therefore not based on national accounting requirements. No guidelines from government or the Ministry of Defense have to be followed, and no other branch of government audits the military. It is only the Minister of Defense who has twice commissioned investigations in the G4 operations as a response to possible inefficiencies in the department. By and large the current control processes are considered adequate and are progressively upgraded as necessary.

Because the G4 mainly handles materials and equipment, accountability is mainly a justification of what and how much was used in a given period, general evaluation on what was achieved cannot yet be readily quantified.

8.   Performance Measures in the G4

At the G4 level of operation, some evaluation measures are employed and others are being generated and are yet to be incorporated in the formal system. But in general no standardized performance appraisal measures exist for the defense department. Different departments adopt provisional procedures as independent internal evaluation and assessments. There is therefore no agreed upon framework for evaluation, and issues of what, how, and when to measure do not exist.

Some of the internal evaluation procedures for the G4 are:

- Accident rates (what was the annual accident rate relative to the past year);

- Labor productivity (technicians) based on number of vehicles repaired and serviced per person per year;

- Input and output relationship, what was planned and how much was received to execute the programmed activity?

The table shows the resources received as a percentage of what was requested.

G4 Performance Report for the Fiscal and Calendar year 1999 as % of Programmed Activities *(Based on Resources received for the Programmed Activities)	
Directorate	**Resources Received as % of Projected Requirements for the Year**
Transport	18% of what was required
Supplies and Stores	11.9%
Barracks, Engineering and Construction	12.7%

Table 3.1

According to accident reports, the accident rate reduced from 14% in 1998 to 7.9% in 1999. These improvements have been attributed to improved road conditions, training and control of drivers, and the improved maintenance and service of military vehicles.

Labor productivity rates in motor vehicle maintenance and repairs, (measured in number of vehicles repaired per technician) productivity per technician increased from 56 vehicles per individual in 1998 to 105 vehicles per technician in 1999. Increased productivity was due to hiring of competent skilled mechanics, relatively newer vehicles, and improved maintenance and repairs management. All these are based on official internal G4 records. Evaluations are done on comparative basis i.e. the recent performance relative to the past period.

D.   CULTURE

The organization has a strong camaraderie spirit, with friendly and helpful employees. They are very committed to the organization and their work. They know the organization and understand it very well. Everyone knows what it takes to succeed, survive, or fail in the organization.

E.   OUTPUTS

In the past five years, the logistics service has successfully managed to provide the fighters with the necessary war fighting requirements. The military has fought two wars to a successful conclusion. One war was in 1996-1997 against the former Zaire regime and the Rwandese ex-military it was supporting, and the second one was an internal insurgence of former militaries and militias who were repatriated in the war against former Zaire, now the Democratic Republic of Congo. The Army still is currently operating in the Democratic Republic of Congo against the former military and militias

who killed vast numbers of people and their Congolese supporters. Despite the limited and scarce resources, the logistics units have been successful in mobilizing and delivering the available materials to the fighters from wherever they have been operating.

The main reason for these successes have been attributed to the patriotism of the service members in general and the logistics staffs in particular who, despite inadequate remuneration and limited operational resources, have remained committed to their primary responsibilities. Apart from noting that soldiers have been performing well, and bearing in mind that the G4 has been delivering them material and services they need, it is not possible to rank the logistics services' performance objectively. This is because no objective performance standards and measures for evaluation exist.

From the interviews I had with the various logistics officials, it can be concluded that, although the logistics service has had significant achievements in its operations and as new initiatives are still being adopted there is more need and room for further improvements. The turbulent external environment demands a very efficient and effective use of the limited resources. The Defense Ministry needs to be shaped so that it can take advantage of environmental opportunities and at the same time be in position to face the future challenges.

Minister of Defense

- **Finance**
  - Budget
  - Patrimony
- **IT**
  - Telecom
- **Medical**
  - Equipment
- **Inspectorate of General Military Equipmemnt**
- **Planning**
  - Construction
  - R and D
- **Production**

- **Commandant Republican Guard**
  - Logistics Officer
- **Commandant Airforce**
  - Logistics Officer
- **Chief of Staff Army**
  - G4 Army
    - Material Supplies and Strores
      - Food
      - Clothing
      - Others
    - Transport
      - Maintenance
      - Fuels
      - Inspectorate
    - Construction and Engineering
      - Procurement /Stores
      - Housing
- **Trainning Academies**
  - Logistics Officer
- **Judicial and Military Police**
  - Logistics Officer

THE GENERAL HIERARCHY OF THE DEFENSE LOGISTICS SYSTEM

Figure 3.1

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                          ┌─────────────────────┐
                          │      G4 Army        │
                          └─────────────────────┘
              ┌───────────────────────────┐
              │   Staff Administration    │
              │      Research and         │
              │  Development/ Finance     │
              └───────────────────────────┘
   ┌──────────────────┐   ┌──────────────────┐   ┌──────────────────┐
   │  Directorate of  │   │  Directorate of  │   │  Directorate of  │
   │ Construction and │   │    Transport     │   │ Supplies and Stores │
   │   Engineering    │   │                  │   │                  │
   └──────────────────┘   └──────────────────┘   └──────────────────┘
                          ┌──────────────────┐
                          │   Information     │
                          │ Documentation and │
                          │  Administration   │
                          └──────────────────┘
```

| Housing and Accommodation | Procurement and Stores | Maintenance Service and Transportation | Fuels Stocks Distribution and Field Depots | Materials and Inventory management | Clothing | Food | All other items |

| Regional Field Offices | Regional Field Offices |

THE G4 OPERATIONAL STRUCTURE

Figure 3.2

```
                    ┌─────────────────────┐
                    │  Army Chief of Staff │
                    └──────────┬──────────┘
                               │
                    ┌──────────┴──────────┐
                    │ Deputy Army Chief of │
                    │        Staff         │
                    └──────────┬──────────┘
                               │
                    ┌──────────┴──────────┐
                    │      G4 Army         │
                    └──────────┬──────────┘
```

Engineering and Construction

Material Supplies

Transport

Housing and Accommodation

Procurement and Stores

Food Section

Clothing and Apparels

Other Items

Maintenance

Fuels

Inspection
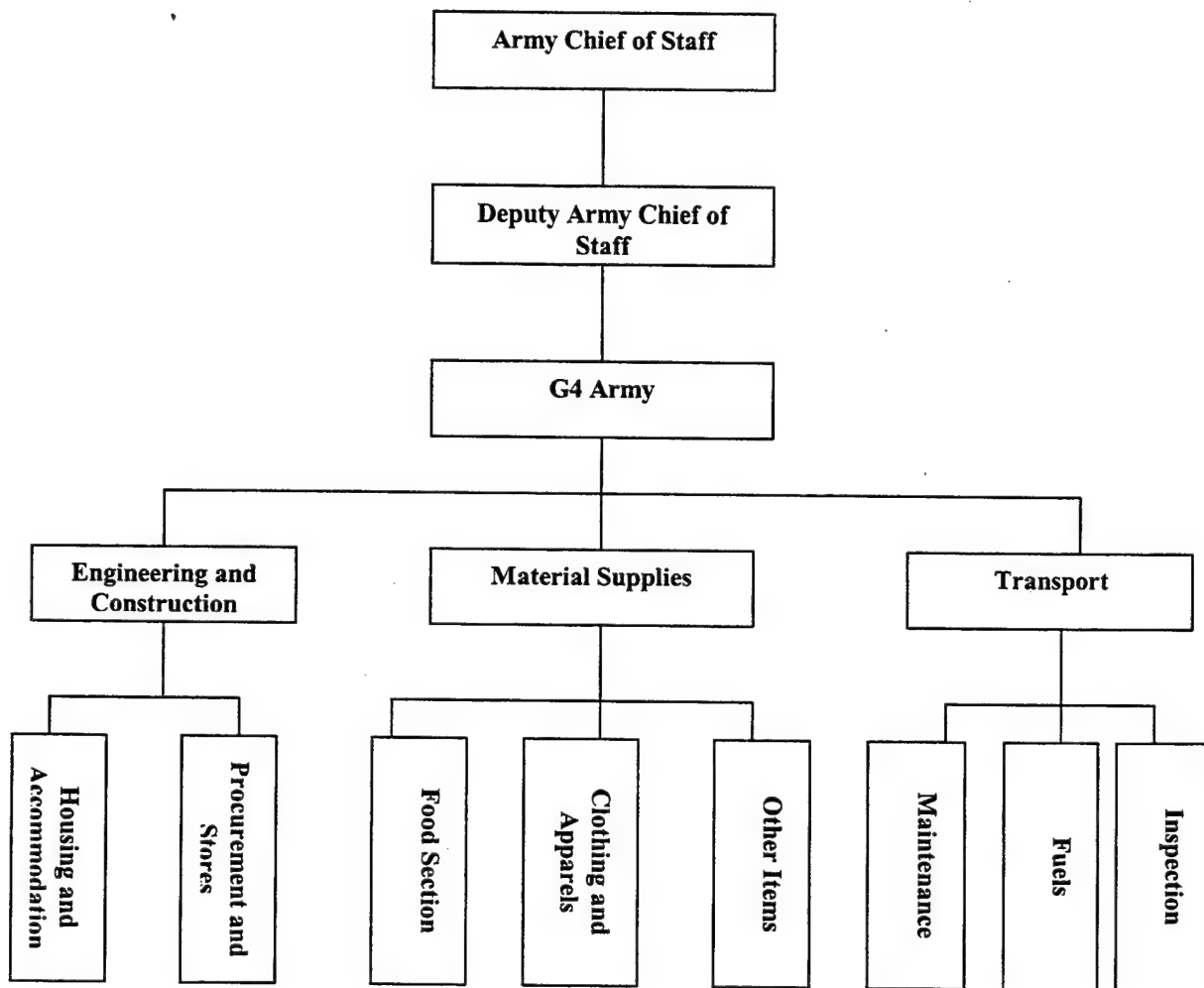
THE G4 POSITION IN THE ARMY STRUCTURE

Figure 3.3

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IV. ANALYSIS OF THE G4

A.   INTRODUCTION

This Chapter uses the organizational framework and applies it to the G4 organization described in Chapter III. The systems model is a framework for viewing an organization wholistically in terms of its internal components and external environment. The model consists of design factors, which are shaped by the organizations' context, key success factors, and strategic direction. These combined with organizational culture, influence organizational outputs and outcomes. Figure 2.2 is the systems model discussed in Chapter II. And Figure 4.0 is an adaptation of the systems model to the G4 organization. This diagram translates results of the analysis into various categories captured by the systems model.

A discussion of each component follows.

B.   CONTEXT

G4 Army is greatly influenced by the external environment, resources and history. The political and economic environment is particularly relevant to the context of the G4. The environment currently includes high security threats facing the region in general and the country in particular, budgetary constraints, and pressure from external donors to cut defense expenditure. The country is caught between high security threats and intense

external pressure from donor nations to reduce the military's size and defense spending so that the government can instead invest more in social programs.

The social environment demands the government rehabilitate its infrastructure, repatriate refugees and resettle returnees. Other pressing social demands include programs to address problems of genocide orphans and other survivors and development of the judicial system.

G4 is resource-constrained. Its budget and skilled personnel are inadequate, unfortunately no data are available to pinpoint the actual deficiencies. The scarcity paradoxically contrasts with the current intense and demanding needs of the army. It is within this dilemma that the need for more efficient use of available resources has become more obvious and inevitable.

1. Key Success Factors

The G4 operates in a responsive mode reacting to demands of its clients as they come; also, it mainly relies on constantly switching priorities and mobilizing available resources and energy according to needs of the moment.

2. System Direction

The mission statements, given by the G4, describe an attempt to balance the needs of the forces given the available scarce resources. The organization constantly adjusts priorities to meet emergent needs. Constant shifting of priorities has reduced mission clarity, disrupted planning and programming and therefore eroded the overall organizational performance. Although not serious in the short-term, this situation is very detrimental to the long-term performance of the organization.

The intense operations since 1994 have not allowed the Army to evaluate and properly spell out what it wants to be and how it can make changes. Most attention has been directed toward countering security challenges. It is becoming apparent, however, that an efficient logistics service is essential and cannot be postponed. It is also important to note that growth and development of the Army has not been a result of long-term efforts, but rather a reactive response to the turbulent national and regional security environment. This has a significant impact on the current behavior and operations of the G4 organization.

In addition to all that has been mentioned, frequent reshuffles and constant turnover in personnel, especially at top levels of the organization, disrupt the continuity necessary to develop and maintain organizational direction. New managers, leaders, and employees quickly get engaged in day-to-day issues and emerging crises. Hence, there is no corporate memory to help the organization avoid repeating past mistakes, or to use experiences to design and establish better work processes. Of immediate concern is putting out "organization fires" with minimal, if any, regard to a long-term strategic focus. Furthermore, the G4 lacks periodic evaluations to indicate whether it is actually realizing its primary goals.

Environment/ Context (External to the System)
Political Uncertainties, Regional Insecurity,
A weak National Economy, and a Fractured Society,

Key Success Factors (what does it take for the system to be successful?)
Responsive Organization, mobilizing available resources and energy to
emerging events.

Systems Direction
Provide the army with logistical support for mission accomplishment.

Structure
A centralized chain of command and functional structure at upper levels and a decentralized technical and field activities, integration is by hierarchy of authority.

Process/ Subsystems
Human Resource Management
Appraisals are subjective and intuitive lacking objective metrics. There are no formal recruitment, selection, rotation, promotion, rotation, retirement or discharge policies. There is a lack of skilled personnel.
Training is mainly by on job training, workshops, and formal education.
Compensation package is monthly salary, recognition and promotion.
Measurement and Controls
Internal controls include segregation of duties, documentation and reporting, and periodic reviews and checks.
Information Management
Communication is top-down, with both lateral and vertical exchange at lower levels.
There is no functional planning.

Tasks
Planning, programming, requisitioning, acquiring, storing, allocating, maintaing, servicing, and distributing all logistical material and equipment to the army.

People
Young, few skilled, but very committed, with a lot of expectations from the organization.

Technology
Mainly routine, simple technology, activities are carried out according to established procedures despite being reactive rather than pro-active. Exceptions are in planning and forecasting where evaluations are dictated by circumstances.

Culture
Employees have strong camaraderie spirit, associate according to roles, very proud and identify with the employer. They are committed to the organization. They know very well that to advance and succeed you only need to take care of short-term issues, which give quick and clear results. Concern for long-term issues is not highly regarded in the organization. Conflict resolution is handled through the chain of command.

Outputs
Provision of material, equipment and service to the fighter.

Outcomes
Force readiness, morale, improved welfare, cost savings, customer satisfaction, reduced wastage and accidents

The Systems Model (Source: Roberts Nancy, Naval Postgraduate School, 2000.)

THE ORGANIZATIONAL SYSTEMS FRAMEWORK ADAPTED TO G4

Figure 4.0

C.   DESIGN FACTORS

1.   Technology and Tasks

The G4's broad mission is to ensure the provision of all materials, equipment, and services to the forces to enable the military to execute the national defense obligation optimally. Tasks in this broad mission include: planning, requisitioning, procuring, storing, allocating, distributing, maintaining and servicing materials and equipment for the Army. The tasks vary from simple routine activities to some complex and technical activities, especially in preparing requirements and processing procurement.

Work within the G4 directorates is largely routine work with standard operating procedures. For example maintenance of vehicles, management of fuel and stores, and rationing available items are carried out according to established procedures with minimal alterations.

The critical roles of formulating long-term operational plans, and conducting operational audits do not count in the priorities of day-to-day operations, and are not allotted the needed time and resources by the management and Defense leadership. This is a serious problem, which blinds the organization to long-term focus and instead ties the G4 to short-term and immediate issues. In other words, the G4 working time is basically spent on administrative work and does not have enough time to attend to the essential operational and management tasks.

2. Structure

The G4 is structured functionally with three directorates at the (Directorate) upper level and has a matrix structure at the field level where the organization is sub-divided according to both function and geography. The structures fall within the traditional military chain of command.

The structure of the G4 is practically misaligned with the mandate and missions; this is because G4 is informally charged with all defense logistics activities, whereas the organization is formally structured as an army logistics service. The extra informal responsibility of serving as a defense logistics department overwhelms the current formal G4 structure. This lack of fit creates confusion in the actual mandate and mission of the G4. See Figure 3.2 for the actual ground operations of the G4 and See Figure 3.3) for G4's formal organization structure. These two structures are very different and the difference accounts for some of the gaps and malfunctions in the operations of the G4.

Dependence on informal structures and ambiguous role definition create overlaps and confusion especially in budgeting and acquisition and contract management activities between the Ministry of Defense departments and the G4. The current structure of the logistics service centralizes the budget and acquisition activities in the Ministry of Defense thereby isolating the ground logistics units (G4) from the crucial budget and contract management activities. The isolation reduces G4's capacity to plan, program, control, and coordinate the general logistics function. Hence, the present structure limits the Army and the G4's capacity in setting Army priorities and proper management of the logistics activities.

Unclear mandate and mission, structural overlaps result in confusion and conflict. For example, the Army is more focussed on realizing the security objective (effectiveness), whereas defense management is much more concerned with both effectiveness and efficiency of operations. The lack of fit between the two complicate efforts to balance efficiency with effectiveness.

Also, the G4 operations are not well integrated with field unit operations. For example, unit commanders have a "do not care" attitude about logistics issues in their units. They tend to pay more attention to other operational matters and leave logistics matters to the junior and inexperienced personnel in the units. Interest and concern only surfaces when there is acute shortage, or when there are specific instructions from the Army Chief detailing particular actions to be taken. The gap undermines efforts toward efficiency and accountability and very often leads to misuse and waste, especially in the field units.

The current G4 structure is result of the country's military history. This structure was appropriate in the past when the "Military was the Army". When the Defense department and the Army were small, they were adequately funded both in the national budget and from outside through abundant military assistance from former colonial countries. With time, the Army has expanded and there are no extra resources available for the Ministry of Defense. But the logistics organizational structure has remained relatively unchanged. Hence the old structure is no longer congruent with the current G4 mission and the lack of fit is responsible for some of the inefficiencies identified in G4 operations.

3.   People

Personnel in the G4 are mainly young men, who are looking to the future, anticipating developing careers and meeting other personal expectations. Unfortunately, the G4 still lacks the right people both in number and skills for optimal deployment of the very scarce material and financial resources. There are few specialized, competent, and knowledgeable employees who can appreciate the complexities of the situation. The organization definitely requires qualified personnel who can devise, plan and effectively implement logistics policies that fit the given circumstances. Specifically there is a severe shortage of specialized talents in the fields of finance, management and administration, acquisition, and other administrative and leadership roles.

Furthermore, the Army lacks mechanisms for identifying, selecting, placing, training, and developing the necessary manpower for the organization. Hence the organizational and individual personnel expectations cannot be satisfied. This problem is service wide. Another reason for some of the problems in the G4 is that growth and expansion of the Army has not had a corresponding growth of the support services, especially the G4. The unproportional growth seriously constrains the G4 capacity to operate. Meanwhile, recent efforts to solve the manpower shortage are yet to yield results. However, not much can be realized in the short-term given the magnitude of the task at hand.

People are the most important resource in any organization, especially in the Army and the G4, where work is labor intensive. Unfortunately, the organization does not have programs or mechanisms in place to meet employee expectations and wishes. This

issue requires immediate response in the Army's policymaking process, if the Army hopes to keep a motivated and skilled pool of people. The Army at large needs to prove that it is a "pro-people" organization in order to continue attracting people to meet its manpower requirements for the future. Given the scarce financial and material resources in the Army, the most important and lasting contribution lays in improving and developing G4 employees and creating an appropriate and attractive working environment.

4.   **Processes and Subsystems**

a)   Human Resource Management. The Army and the G4 lack a formal human management function. Selecting, training, rewarding, and developing people are still haphazard and uncoordinated tasks. They are neither linked to the organizational direction nor to its performance. Consequently there has been limited deliberate and coordinated formal effort to prepare personnel for the logistics function. Although it is common to hear managers talk of the need and shortage of skilled manpower, no organizational audit has been made to determine what those manpower needs are. There are no mechanisms in place to identify, train, and place skilled employees in the organization. Clearly, this is a serious problem in the national military.

b)   Rewards. Rewards in the organization as in all military services go to those with the ability to respond quickly and decisively. In other words, fire-fighting capabilities are sought and rewarded accordingly. The primary compensation package is a monthly salary. Another form of reward unique to the G4 is that it a place where employees acquire vocational skills in various technical fields. These skills are a valuable asset that benefits individuals when discharged from the military, this form of reward is

the most highly regarded by the G4 employees. Other forms of reward are promotions, commendations and recognition which are not yet formally institutionalized.

c)   Staffing. The G4 staffing, like in other support services, lags behind field operational units because command roles take priority. For example, it is only the G4 and the directors' positions that are officially appointed. The G4 and his directors fill other junior positions in the Army G4. This is done without any accurate objective criteria and often results in the placing of incapable and unqualified people to be responsible for very scarce organizational resources.

d)   Employees in the organization mainly care about the day-to-day operations because they are the basis for rewards and advancement of personnel. In addition to this, unclear tenure and lack of properly articulated personnel policies discourage managers and employees from having any long-term interest in the organization. Employees therefore, stick to short-term survival skills. The practice is counter-productive to the long-term functioning of the G4.

e)   Financial management. G4 only manages a transport maintenance fund; the rest of the Army budget is centrally controlled in the Ministry of Defense. The Army is demanding direct control of its budget so that it can properly plan, set its operational priorities, simplify and speed up the acquisition process, and form a working strategic planning process. Unless the Ministry of Defense gives the Army a more autonomous and active role in the budget and acquisition process, no significant improvement in the logistics activities can easily be attained. This is one of the reasons that prevents realistic or functional planning in G4.

f)   Measurements and Controls. Organizational performance is measured by whether or not the organization delivers the available logistics to the forces and how equipment and materials are managed. Currently, there are no formal objective evaluation and measuring procedures in all the Ministry of Defense departments. Existing evaluations are an internal initiative of the G4. They are done on day-to-day basis and are not effectively used as guides for process evaluations, trend analysis, or forecasts.

g)   Controls. There are many internal mechanisms to control and to monitor the internal operations of the logistics department. They include establishing task teams to allocate available materials, standardize operating procedures, and write periodic accountability and operational reports. However, some of the procedures do not add any value to the organization. Instead they are considered to be obstacles to organizational improvement and operation. For example, the reports and other documentation are mainly prepared so as to record that regulations were complied with, without considering whether they actually add any value or are relevant to operational improvement. Sometimes a simple request goes through a long and tedious process which causes delays and extra costs.

The consequence of these procedures is to make every employee comply with the status quo instead of attempting to be operationally efficient. There is limited room for innovation and failure. Nobody dares to try anything new outside the usual procedures because failure is punishable. Hence the G4 is not a "learning organization." In fact, some of its procedures inhibit rather than enhance higher performance. Thus, it should be no surprise that projections for the distant future are of limited interest in the organization.

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h)   Planning and Communication

The G4 has no long range planning. Its major operations have a short-term orientation and therefore relegate strategic long-term planning and programming to a lesser role. This promotes the habit of learning the basic rules for survival, dealing with short term more obvious issues and making marginal incremental changes. Long-term planning becomes less important since every manager assumes he will be out after a short stay. This work attitude accounts for a number of malfunctions in the logistics activities of the Defense Services. Short-term focus ties the organization in routine administrative roles making the organization operate in a reactive rather than a pro-active mode. In addition to the mentioned problems, overlapping roles, ambiguities in the defense structure, and lack of clarity in the mandate and missions erodes the organization's planning and forecasting abilities.

Obviously, communication is important to the operations of the G4 organization. The major communication mediums are telephones, radios, face-to-face meetings, reports and memos. Given the reactive mode in which the G4 operates, decision making is mainly top-down, where, the Army Chief of Staff instructs the G4 what priority issues to address and the G4 follows up on execution. There is limited use of feedback for planning and process improvement.

i)   Information Management.

The G4 gathers and maintains a great amount of information about logistics operations, although it may be inaccurate and unreliable. There is a general lack of appreciation of the value of this information. It is often stored in an unusable form and it

is rarely used to improve operations. Consequently, the information ends up being ignored and discarded despite the energy and investment in gathering it.

D. CULTURE

The organization has a strong spirit of camaraderie, with friendly and helpful employees. They are very committed to the organization and their work. They have vested interest in G4 because they expect to acquire vital skills for their future personal benefit.

They know the organization and understand it quite well. They know what it takes to succeed or to survive in the organization.

Firefighting is the dominant culture in G4. The capacity to react quickly and decisively is automatically considered as being competent. This practice, coupled with absence of objective performance measures and job uncertainty, compels officers to do what will make them appear proficient in their jobs. Consequently people avoid change because it requires a long-term system wide perspective. Fear of failure at such a difficult undertaking, is understandable. Unfortunately this reluctance to change limits their opportunities to learn by doing. And such a culture undermines innovations and deep thinking, which are important for long-term process and organizational development.

E. OUTPUTS AND OUTCOMES

The G4 has a broad mission of providing the fighter with needed materials, which include food, clothing, fuel transport and housing. The organization is also tasked to maintain and service these materials and equipment.

Outputs are measured by how quickly the forces receive what they need. The quality of the services can be measured by customer feedback (complaints, or appreciation), the availability of the requirements in inventory, the cost savings especially with efficient acquisition procedures, and the establishment of more cost effective storage and distribution networks, the rate of accidents, and the level of material loss and inventory accuracy.

Currently, all the measures of outputs above cannot be objectively quantified. Furthermore, there are no evaluations of outcomes or the consequences of organizational output. Organizational assessment is still conducted in a reactive mode, dealing with events and preparing immediate cures in a crisis management mode.

All the mentioned measures would be good formal procedures of performance evaluation and measurement of output. Unfortunately, there is very limited use of these measures in G4.

In a few areas some quantitative measures may exist, but more generally, formal evaluation of organization performance as mentioned earlier are based on intuition, hearsay, and value judgment.

The organization lacks formal systematic reference to accumulated experience and rarely is any effort spent on projecting the future. The major concern is here and now. The use of lessons learned from past experiences or forecasting and future projections does not exist in G4.

F. RECOMMENDATIONS TO IMPROVE G4 OPERATIONS

My recommendations to improve the G4 operations are based on the following assumptions:

- The military structure and size are to remain the same for sometime, i.e. given the current environment, no significant force reduction will be possible in the short-run and the Army will continue to dominate the Rwandese military for sometime.

- Economic conditions will not allow any more resources to become available to the Defense Department. Hence improvement can only come about through proper management of the available resources.

- The Army will assume responsibility for improving the human resources management function, which is currently underdeveloped. And change in some areas of the G4 can only be realized if there is broader systems change in the Army and generally in the Ministry of Defense logistics system.

These recommendations are not the magic cure of G4 problems but rather they are intended to be starting points for more comprehensive and continuous deliberations of all possible improvement actions in the organization.

Suggested recommendations are summarized in Table 2 based on the analysis in the previous section. A detailed description of the proposed changes follows.

AREAS AND RECOMMENDED CHANGES IN G4

	System Area	G4 Change Recommendations
1	**Direction Setting**	• Redefine Direction of the G4 vis a vis the Ministry of Defense and the Army. This should include reexamination of its mandate and mission. • Develop strategic planning and management process for G4.
2	**Design Factors**	• Revise design factors to be congruent with the new direction.
a	• Tasks and Technology	• Restructure and realign roles with the primary organizational mission. • Conduct a value chain analysis to identify essential from non-essential and non-viable activities. • Eliminate redundancies, non-core mission areas, and overlapping roles.
b	• Structure	• Phase out fragmentation of work processes and instead improve coordination or related work processes. • Group activities into a structure that is compatible with the new strategic direction. • Redesign the structure to fit with the mission and processes.
c	• Human Resource Management	• Consider ways of recruiting civilians to supplement G4 workforce.
d	• Financial Management, Budgeting, and Resource Accountability	• Establish a skilled manpower pool of logisticians in G4 who can then be deployed throughout all army units to the logistics function. • Establish a management audit function to improve financial and operational efficiencies. • Relate resources to outputs to evaluate efficiency.
3	**Culture**	• Should encourage vision, innovation, and learning through experiences. Discourage survival or complacency amongst organizational members. • Create conditions favorable to organizational learning for general long-term process improvement.
4	**Outputs**	• Identify and establish objective and clear measures of performance. • Conduct continuous evaluations to see whether actual organizational results match the projected results, identify causes of disparities and devise measures to resolve them.

Table 4.1 Summary of Change Recommendations for G4 Army.

1.   Setting Direction

G4 needs to develop a clear direction for the organization that is meaningful, relevant, and inspiring. The Army Chief of Staff should update G4's mandate to fit the present environment. There is need to address how the Army logistics service fits in the overall Defense logistics system.

There are two possibilities for such realignment. The G4 mandate and operations can be revised to either: expand G4 formal responsibility, by incorporating all that it currently does but falls outside G4 formal mandate, or to re-focus the G4 to the core G4 formal missions and then assign G4's current extra roles to other organizations. Either action would give G4 a clearer sense of unity, purpose, responsibility, and accountability.

After establishing this new mandate and identity, G4 should set up its own strategic planning team to set its direction to clarify the organization's mission, values, vision, and strategies.

2.   Design Factors

Implementing a new direction involves manipulating the system design elements. Congruence between the direction and design elements and among system components must be considered when making any changes. Each component must be considered both separately and collectively. Members of the G4 need to understand how changing an individual component impacts the whole organization. Any change should aim at bringing about more congruence among all the design elements.

a) *Tasks and Technology*

G4 roles and responsibilities should be clearly identified then properly focussed towards achieving the organization's mandate and mission. G4 should concentrate all available resources on the core work of the organization. Involvement in too many activities at the same time can exhaust personnel, disrupt and divert attention from the essential activities and operations and waste scarce resources on non-essential activities. A strategic planing team should suggest which crucial activities should take priority, then, alternative ways of handling the non-essential activities can be devised.

b) *Structure*

Work should be restructured to support the primary mission of the G4. The current structure of the G4 is not congruent with the mission and does not support the vertical and lateral coordination and mutual adjustments required for efficient logistics operations. There are two possible options for structural change:

The structure could be decentralized and directed toward the Army's mission, so that the Army could directly manage its activities enabling it to prioritize and monitor its logistics process. Thus the G4 would be more directly involved and responsible in the planning, programming, budgeting, and contracting activities of the Army which are currently centralized in the Ministry of Defense. Most important, the new structure would clarify the relations between the G4 and the Ministry of Defense departments, which currently overload the G4 with more and more responsibilities that slow down logistics operations, create conflict in roles and responsibilities, and lead to poor accountability.

This recommendation requires the Ministry of Defense to strengthen the logistics support departments in the ministry so that they can facilitate other service's logistics units.

Alternatively the structure could be centralized. A Ministry of Defense logistics service could be designed to centrally serve all military services. This defense logistics service would be responsible for general military logistics and defense contracts, policy-making and long-range planning. This option would require that each service have its logistic sub-unit with a direct functional link to the defense logistics service. The option could enhance integration of logistics activities in the military and allow more coordination of logistics policies and operations between the ministry and the services. Centralization also would ease the otherwise fragmented and poorly coordinated acquisition and budgeting activities. This alternative calls for a smaller G4, narrowly focussed on serving the army, but closely coordinating with the ministry logistics department.

With the initiation of a strategic planning effort other structures could be suggested, evaluated, and discussed basing on past experiences and future projections. Ultimately the goal would be to adopt a more workable and efficient structure for the logistics service that is congruent with G4 direction and mandate.

c)   *Human Resource Management*

•   Possibilities of hiring civilians to resolve the skill deficiency should be considered. After all there are many skilled unemployed people who would be happy to get jobs.

- Personnel and training. G4 should seriously consider setting up a customized logistics-training program to equip logistics employees from various backgrounds with the relevant and necessary skills to perform G4 tasks. The primary function would be to initiate a critical training program, make use of lessons learned, and reward the desired behaviors. Furthermore, G4 leadership coordinating with G1 should actively be involved in the selection process to ensure possible job matches under the current personnel system.

- Rewards. The traditional reward system should be updated to motivate desired conduct and behaviors. Effective and innovative ways to motivate and reward excellence in performance for individual and groups should be part of the army G1 and the G4 particularly. This would require assessing what members of the organization value by asking them or by borrowing alternatives from other organizations with the experience. Efforts should be made to establish personnel motivation and development programs.

d) Financial Management, Budgeting, Accountability, and Planning

By starting the planning process with a mission statement, G4 leaders and Army leadership can begin to focus the limited organizational resources on the most critical needs of the Army. It is always true that more achievement comes from doing a few things well. Therefore G4 needs to identify its priority tasks and devote its available resources to carrying them out. The organization should emphasize cost accounting to improve financial management.

3. Culture

G4 should consider developing through its direction setting and design factors a culture that is favorable to organizational learning. This can be done by rewarding innovative behavior, learning from past experiences, encouraging people to take initiative so as to contribute to organization improvement. G4 should emphasize planning and visions instead of "quick fix" actions. Organizational members should be allowed to take some risks for the purpose of seeking ways for improving G4 operations because innovation always carries the risk of failure.

4. Outputs

The G4 has a few, if any, actual measures of performance. To improve performance or productivity requires defining what is it that the G4 is supposed to do and then measuring it. The more employees perceive that an activity is measured, they are likely to devote more effort to the activity. G4 managers should work to establish performance measures for the organization's goals and if possible should involve as many organization employees as possible. Practice in creating metrics for output evaluation could be documented and incorporated into the G4 personnel training and orientation programs. The nature of the measure is not nearly as important as the fact that a measure is selected, communicated, and monitored.

G.   SUMMARY

Given the current environment in which the G4 operates, it is crucial that several issues raised in this thesis be critically examined and addressed if the organization is to be transformed into an efficient and effective organ of the Army.

Although there is acute shortage of resources, critical re-evaluation is called for to set new direction, restructure the organization to fit the new mission, initiate a strategic planning function, and refocus organizational energy and resources to priority programs. These efforts should link with objective measures and indicators to give leaders and managers some indication whether their organization is really progressing and improving its performance.

Some recommendations, for example those related to human resource management, will require broader system wide intervention because they fall outside the G4 domain. Hence support from Army leadership and the Minister of Defense will be necessary for the changes to be successfully implemented.

V. CONCLUSION AND SUGGESTED AREAS OF FURTHER STUDY

A.   INTRODUCTION

This thesis describes the G4 organization from an overall systems perspective and makes recommendations to improve performance. An important step in any change process is to understand how various organizational inputs and design factors can be altered to achieve desired results. Military leaders seeking organizational improvements must first have a clear picture of all major systems components in order to know where and how to intervene.

The thesis was intended to answer the following questions:

- What is the nature of G4's current operations, in terms of its direction, design features, and results?

- How well is the organization functioning or performing?

- What can be done to improve performance?

The thesis shows that G4 is currently operating in a very dynamic and uncertain environment faced with competing demands amidst acute budgetary constraints. This is further compounded by the organization's lack of clear direction. All these have led G4 to become a responsive organization operating in a reactive rather than a pro-active mode.

G4 operations mainly involve simple and routine technology, with primary tasks programmed and standardized except for a few activities like preparing force requirements and acquisition processing which are more complex and require technical

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skills. The organization's operations are basically short-term focussed mainly on routine administrative work with virtually no long-term operational plans for essential operational and management tasks.

G4 structure is both functional and matrix at different levels. However, G4 is currently involved in far more activities than what it is formally mandated. The extra responsibilities are an overload to the G4 structure.

The organization has energetic and loyal employees, but they are not adequate both in number and skill levels. Staffing is still haphazard except for the three top positions. Personnel matters for the Army are centrally managed by the G1 service. The Army still lacks mechanisms of addressing personnel issues and therefore organizational and individual personnel expectations are still unresolved.

Financial management, measurement and control, and planning functions are either lacking or are primarily short-term focussed and used for internal evaluation and assessment where they exist. G4 gathers and maintains large amounts of information on logistics operations but it is not used for operations improvement.

G4 has a crisis management culture responding to emergent issues, there is strong fear for change mainly because failure is discouraged and is often punishable. Nonetheless, G4 employees are loyal to the organization and committed to work. they have close ties, mainly associating according to functions and specialties.

The organization generally lacks objective measures of performance, but there is limited evaluation based on: feedback from the ground forces, inventory levels, and cost savings more especially from improved acquisition procedures or better distribution

networks and stocks management. Performance evaluation is still primarily based on intuition, hearsay, and value judgment.

Regarding how well the organization is currently functioning, the analysis shows a seriously resource constrained G4 which lacks a clear mandate and mission. The organization is tasked with doing everything without the necessary means and direction. Despite the challenges and unfavorable external environment, G4 has served the Defense Ministry in general and the Army in particular since its inception in 1995.

It is clear from the description and analysis of the organization, that a lot has to be done to improve operations of the G4. Currently, it lacks direction and the necessary resources to make it an efficient agency. Therefore it has turned into a "firefighting" unit, tending to do everything at the same time.

Lack of direction offsets concentration on primary mission and renders the G4 a mediocre organization at best, especially in the long run. There are a number of irregularities in the design factors, which limit G4's capacity to operate efficiently, and these include concentrating on administrative work with limited time to attend to essential operational and management tasks.

The structure does not fit the extra responsibilities imposed on the organization. The lack of fit results in confusion, conflict, and exhaustion of employees and wastes resources. Furthermore the current structure isolates the G4 from the important roles of budgeting, planning, forecasting and contracting for the Army; these functions are currently centralized at the Ministry of Defense level. Lack of fit in the G4 structure is responsible for malfunctions in operations, accountability and responsibility.

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Absence of formal mechanisms to address personnel matters, scarcity of employees and skill levels reduce operational efficiency. This is further worsened by a lack of satisfactory rewards to employees. Hence, motivation and productivity are eroded.

In terms of financial management, controls, and planning. The Army's limited participation in the budgeting and contracting roles reduces the G4's ability to prepare any functional plans. Budgeting and contracting are centralized in the Ministy of Defense.

Decision-making and communication is mainly top down, which portrays limited decision-making at lower levels and limited use of feedback loops. This situation reduces exchanges that would improve operations. The only exception is at lower levels where technicians have authority over their tasks and often advise directors and G4 on technical matters. Information gathered on logistics operations is not effectively used for decision making support and improvement in operations. The communication gap results into faulty decisions in logistics operations.

The quick fix and results oriented culture although a great asset in the short-term, is a liability to the long-term perspective of the G4 because it blinds the organization from properly forecasting the future, and discourages innovation.

The G4 has served the the Defense Ministry for the past six years and has enabled the Army to accomplish significant operational results. Despite the achievements, there is still room to improve the logistics operations to achieve far better results. Although it is not easy to measure current efficiency levels given that what constitutes a basis for evaluations is virtually lacking, there is little question that design misfits exist and need to be addressed to improve organizational performance.

Analyzing the organizations' context, strategy, design elements, culture, outputs, and outcomes, reveals that G4 exists in a very dynamic, complex and uncertain environment. Its direction and mission are not clear and the system design elements do not appear to be aligned with strategy. Hence, a major conclusion of the study is that G4 must address issues surrounding its mandate, mission, and design if it is to improve its performance. Suggested actions to improve performance include:

- Clearly define the G4 mandate and mission and clarify its relationship with the Ministry of Defense. This action requires active involvement of senior Defense and Army leadership.

- Establish a strategic planning process for G4. The process should include the assessment of the external and internal operating environments, the setting of direction and the implementation and evaluation of short-term and long-term plans, and the measurement of results.

- Identify G4 core tasks and separate them from non-essential activities. Focus resources on core issues, reduce redundancies, and pull resources from processes that do not add value to the organization and direct them to crucial task areas.

- Consider developing a planning, programming, and budgeting process that links military requirements to funded programs.

- Develop measures of performance using and linking them to the organization's direction. Increase visibility of how costs are linked to performance.

- Establish a G4 operating philosophy based on assessment of the external and internal operating environments, clear goals, and implementation and evaluation of short-term and long-term results.

B. AREAS OF FURTHER STUDY

More detailed research is required in the following areas for the Army and the Ministry of Defense to realize long-term development and success of the logistics function:

1. Examine how a defense-wide organizational assessment can be conducted to determine the necessary changes for improving the service's logistics units and the entire defense logistics system. A system-wide assessment would stimulate more comprehensive revisions of the current structures and potentially lead to improvements in G4 operations.

2. Implement organization assessment on a continuous basis in the logistics services to incorporate lessons learned and to make changes based on rational assessment.

3. Introduce information and communications technology into G4 to improve logistics operations.

4. Create a long-term vision for the G4 that is both attainable and inspiring to personnel.

5. Project a long-term shape and size of the Rwandese military that could be implemented when normalcy is attained.

C.   CONCLUSION

These recommendations are intended for discussion among G4 strategic planning team members. They can be used as starting points for considering fundamental organizational change. It is clearly up to the Army senior leadership to provide the strategy, direction, communication, and necessary resources to effect the needed changes. Current inefficiencies in G4 operations can and must be improved upon if the organization is to successfully adapt to a fast changing world.

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Extra responsibilities of the G4

Responsibilities the G4 shares with other departments in the Ministry of Defense and other Military Services. (*These are over and above the official mandate of the G4)*

Figure 3.0 shows the defense logistics system, all ministry departments responsible for logistics, and the position of the G4 in the whole defense logistics network. A description of the army G4 cannot be complete without mentioning all it does beyond its official mandate. In addition to what the unit is formally required to do, the G4 also carries out other functions as "implicitly" mandated by the Ministry of Defense. It serves all the military and the ministry headquarters with the general logistical requirements, which include, transport requirements, maintenance and repair service, fuel and lubricants, material supplies, storage facilities, and construction services. All defense departments still depend on the existing facilities and infrastructure, which is managed by the Army G4 on behalf of all the services.

The G4 service provides the ground infrastructure and depot facilities for storage and distribution of all logistical needs. All services and other logistics departments in the ministry that handle items and equipment like medicines and medical equipment, ammunitions and weaponry, and communication and telecommunications use the established Army infrastructure. All offices handling logistical issues at ministerial and other services level closely coordinate with the G4 in their operations because they cannot

operate without the ground infrastructure and distribution network of the army. Another important function of the G4 service is its coordination with the ministerial departments like medical, information technology and telecommunications, and the inspectorate of general military equipment (IGME) in distribution and delivery of the crucial services and materials provided by these departments to fighting units.

All the mentioned departments with the exception of the Personnel Service form the bulk of the defense budget; hence, their coordination is important in the preparation of the defense budget.

The G4 works closely with the Secretary General in the Ministry of Defense and Defense logistics departments of finance, medical, and general military equipment to coordinate all logistics operations.

With the Secretary General and the finance directorate in the Ministry of Defense, the G4 plays a limited and an advisory role in issues pertaining to contract management. The G4 advises the Secretary General on requisition decisions (what to buy, how much, what quality, and when to buy). And the actual contract management remains a direct responsibility of the defense offices.

G4 is a member of the Military Tender Board a committee that is responsible for contract initiation and evaluations chaired by the secretary general. The board is composed of directors of finance and planning, the chief of personnel in the army (G1) and the G4 as permanent members and any other member from the departments concerned with the materials being processed for purchase.

APPENDIX (B)

Interview Questions

A sample of the questions used in the interviews I had with logistics officials in the Ministry of Defense and the Army service.

The first three questions were general and were intended to give a summary of the operational environment of the logistics service. The remaining questions were specifically intended to generate particular information but were also open-ended.

1. What are your objectives?

2. What helps you achieve those objectives?

3. What prevents you from accomplishing more?

4. What is the purpose of your organization?

5. What are the basic tasks of the organization?

6. What specifications are required in carrying out these tasks?

7. What are the interdependencies among the work units or activities in the workflow?

8. What is the condition of the work facilities and equipment?

9. What are the basic groupings of activities and people?

10. How are the groupings integrated? And what are the integrating devices used?

11. What kind of people, expectations, mindsets, and motives?

12. What knowledge, skills, and abilities do they have?

13. How are resources (financial and material) controlled and measured? And how can you describe your organization's budgeting process?

14. How are people held accountable for resources?

15. How is performance measured?

16. How does the organization recruit, select, retain, rotate, promote, terminate, and retire its employees?

17. Does the organization have the kind of people it needs?

18. How are employees trained and developed?

19. What is formally rewarded in the organization? And what other compensation packages does the organization offer?

20. How does the organization gather, process, distribute, and evaluate information?

21. How does the organization plan, and how are decisions made in the organization?

22. What are the formal and informal patterns of interaction in the organization?

23. What does the organization produce or offer in terms of goods or services?

24. How are these outputs measured and what are the indicators of performance?

25. What are the implications or consequences of these outputs for the organization's stakeholders?

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